

• Appl. No. : 09/652,730  
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### REMARKS

As a result of the present amendments, Claim 20 has been cancelled, and Claims 1, 19, 21, and 22 have been amended. Thus, Claims 1-19 and 21-30 are present for examination. Entry of these amendments and consideration of the claims in view of the following remarks is respectfully requested.

#### **Response to Rejection of Claims 1-9, 11-14, 16, 17, 19, 20, 22-25, and 27-30 Under 35 U.S.C. § 102(e)**

In the August 5, 2002 Office Action, the Examiner rejects Claims 1-9, 11-14, 16, 17, 19, 20, 22-25, and 27-30 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,289,169 to Okuyama (“Okuyama”). Applicant has cancelled Claim 20. Applicant respectfully submits that Claims 1-9, 11-14, 16, 17, 19, 22-25, and 27-30 include limitations that are not taught, disclosed, or suggested by Okuyama. For the reasons presented below, Applicant respectfully requests the Examiner to withdraw the rejections of Claims 1-9, 11-14, 16, 17, 20, 22-25, and 27-30, and to pass these claims to allowance.

#### Claim 1

Applicant has amended Claim 1 to more clearly define the claimed invention. Applicant respectfully submits that Okuyama does not disclose a “digital video recorder connectable to a set-top box ... the digital video recorder comprising: at least one recorder interface connectable to the auxiliary interface; a storage device; a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem connected to the recorder interface to receive the electronic program guide information from the set-top box and to process the electronic program guide information to schedule recording the broadcast audiovisual data on the storage device; and a video output interface separate from the recorder interface, the video output interface connectable to a display device” (emphasis added), as defined by amended Claim 1.

At column 4, lines 25-30 and Figure 1, Okuyama discloses an apparatus which includes a television (“TV”) coupled to a set-top box (“STB”) via a 1394 cable. The TV receives digital data (“1394 packets”) from the STB and converts the digital data into a transport stream. Thus, the apparatus disclosed by Okuyama comprises a TV which is constrained to receive digital data. In column 4, line 54 to column 5, line 9 and in Figure 1, Okuyama describes the TV as including a “program guide GUI generating part 25,” “a screen outputting part 24” coupled to the program

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guide GUI generating part 25, and a controller 26 designed to control each part of the TV 2 and each piece of equipment connected on the network. In column 6 at lines 39-45, Okuyama further describes that:

[t]he program guide GUI generating part 25 generates display data for displaying a GUI display as shown in FIG. 4 according to inputted EPG data, and supplies them to the screen outputting part 24. The screen outputting part 24 displays, on a display screen, the GUI display (program guide display) as shown in FIG. 4.

In summary, Okuyama discloses a television constrained to receive digital program data from the set-top box and to control operation of the network, the television including an electronic program guide GUI generating part which receives EPG data and generates display data which it displays on the display screen of the television.

In contrast to the apparatus disclosed by Okuyama, amended Claim 1 defines a digital video recorder comprising a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an EPG subsystem. Support for this amendment to Claim 1 is found, for example, in Figure 1 of the present application and on page 8 at line 10-12 of the present application. Such a digital video recorder is not disclosed by Okuyama because both the controller 26 and the program guide GUI generating part 25 of Okuyama are in the TV 2 used to display the programs.

Applicant notes that Okuyama, at column 8, lines 44-48, makes a passing suggestion that “the program guide GUI generating part 25 may be placed anywhere in a network ... for example, in the STB 1 or the VTR 3.” However, Applicant respectfully submits that Okuyama does not provide sufficient disclosure for persons skilled in the art to place an EPG subsystem in a digital video recorder as defined in Applicant’s amended Claim 1. The program guide GUI generating part 25 of Okuyama is responsive to the controller 26 of the TV 2, so separating the program guide GUI generating part 25 from the controller 26 by moving the program guide GUI generating part 25 to the VTR 3 would require communication between the controller 26 in the TV 2 and the program guide GUI generating part 25 in the VTR 3. Such a communication mechanism is not described by Okuyama. Moving both the controller 26 and the program guide GUI generating part 25 to the VTR 3 is not taught, disclosed, or suggested by Okuyama.

In addition, separating the program guide GUI generating part 25 from the screen outputting part 24 by moving the program guide GUI generating part 25 to the VTR 3 would require communication from the program guide GUI generating part 25 in the VTR 3 to the

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screen outputting part 24. Such a communication mechanism is also not described by Okuyama. Moving both the program guide GUI generating part 25 and the screen outputting part 24 to the VTR 3 is not taught, disclosed, or suggested by Okuyama.

Okuyama also does not disclose a digital video recorder comprising a video output interface separate from the recorder interface, the video output interface connectable to a display device, as defined in amended Claim 1. The video output interface transmits appropriate display signals to the display device 160. Support for this amendment to Claim 1 is found, for example, in Figure 1 of the present application and on page 7 at line 27-30 of the present application. Such video output interfaces can generate output video data streams which are compatible with digital televisions and analog televisions. Thus, the present application discloses a digital video recorder having a video output interface connectable to display devices beyond the digital televisions disclosed by Okuyama.

Thus, because amended Claim 1 defines features that are not taught, disclosed, or suggested by Okuyama, Applicant respectfully submits that amended Claim 1 is patentably distinguished over Okuyama. Applicant respectfully requests the Examiner to withdraw the rejection of Claim 1 and to pass amended Claim 1 to allowance.

Claims 2-9, 11-14, 16, and 17

Claims 2, 4-6, 11, 13, 14, 16, and 17 depend from amended Claim 1 and further define the invention defined in amended Claim 1. Each of Claims 2, 4-6, 11, 13, 14, 16, and 17 includes all the limitations of amended Claim 1, which are not taught, disclosed, or suggested by Okuyama. Furthermore, each of Claims 2, 4-6, 11, 13, 14, 16, and 17 further recites limitations of particular utility in addition to the limitations of amended Claim 1. Claim 3 depends from Claim 2, Claims 7-9 depend from Claim 6, and Claim 12 depends from Claim 11. Claims 3, 7-9, and 12 each includes all the limitations of amended Claim 1 and any intervening claims, and each claim further recites limitations of particular utility in addition to the limitations of amended Claim 1. Therefore, Claims 2-9, 11-14, 16, and 17 are patentably distinguished over Okuyama since each claim discloses features that are not taught, disclosed, or suggested by Okuyama. Applicant respectfully requests the Examiner to withdraw the rejections of Claims 2-9, 11-14, 16, and 17 and to pass these claims to allowance.

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Claim 19

Applicant respectfully submits that Okuyama does not teach, disclose, or suggest the invention defined in amended Claim 19. In particular, Okuyama does not teach, disclose, or suggest a “digital video recorder connectable to a set-top box ... the digital video recorder comprising: at least one device interface connectable to the auxiliary interface; a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem connected to the device interface to receive and process the electronic program guide information from the set-top box; and a video output interface separate from the device interface, the video output interface connectable to a display device.”

As described above with respect to amended Claim 1, Okuyama discloses a television including a controller 26 and a program guide GUI generating part 25. In contrast, amended Claim 19 is directed to embodiments in which a digital video recorder is connectable to a set-top box and “the digital video recorder compris[es] ... a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem connected to the device interface to receive and process the electronic program guide information from the set-top box” (emphasis added).

In addition, amended Claim 19 defines a digital video recorder comprising “a video output interface separate from the device interface, the video output interface connectable to a display device.” Okuyama does not teach, disclose, or suggest such a video output interface.

Because amended Claim 19 defines features that are not taught, disclosed, or suggested by Okuyama, Applicant respectfully submits that amended Claim 19 is patentably distinguished over Okuyama. Applicant respectfully requests the Examiner to withdraw the rejection of Claim 19 and to pass amended Claim 19 to allowance.

Claim 22

Applicant respectfully submits that Okuyama does not teach, disclose, or suggest “a method for communicating electronic program guide information from a set-top box configured to receive the electronic program guide information to a digital video recorder comprising a video output interface connectable to a display device and a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem, the method comprising: connecting at least one recorder interface of

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the digital video recorder to at least one auxiliary interface of the set-top box, the recorder interface separate from the video output interface and connected to the electronic program guide subsystem; recognizing the connection of the digital video recorder to the set-top box; and communicating the electronic program guide information from the set-top box to the electronic program guide subsystem.”

As described above with respect to amended Claim 1, Okuyama discloses a television including a controller 26 and a program guide GUI generating part 25. In contrast, amended Claim 22 is directed to embodiments in which “the digital video recorder compris[es] a video output interface connectable to a display device and a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem” and in which the recorder interface is “separate from the video output interface” (emphasis added). Because amended Claim 22 discloses features that are not taught, disclosed, or suggested by Okuyama, Applicant respectfully submits that amended Claim 22 is patentably distinguished over Okuyama. Applicant respectfully requests the Examiner to withdraw the rejection of amended Claim 22 and to pass Claim 22 to allowance.

Claims 23-25 and 27-30

Claims 23, 26, 27, and 30 depend from amended Claim 22, and further define the invention defined in amended Claim 22. Each of Claims 23, 26, 27, and 30 includes all the limitations of amended Claim 22, which are not taught, disclosed, or suggested by Okuyama. Furthermore, each of Claims 23, 26, 27, and 30 further recites limitations of particular utility in addition to the limitations of amended Claim 22. Claims 24-25 each depends from Claim 23, and Claims 28 and 29 each depends from Claim 27. Claims 24-25 each includes all the limitations of Claims 22 and 23, and each claim further recites limitations of particular utility in addition to the limitations of Claims 22 and 23. In addition, Claims 28 and 29 each include all the limitations of Claim 27 and further recites limitations of particular utility in addition to the limitations of Claim 27. Therefore, Claims 23-25 and 27-30 are patentably distinguished over Okuyama since each claim discloses features that are not taught, disclosed, or suggested by Okuyama. Applicant respectfully requests the Examiner to withdraw the rejections of Claims 23-25 and 27-30 and to pass these claims to allowance.

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**Response to Rejection of Claims 10 and 26 Under 35 U.S.C. § 103(a)**

In the August 5, 2002 Office Action, the Examiner rejects Claims 10 and 26 as being unpatentable over Okuyama in view of U.S. Patent No. 5,648,824 to Dunn et al. (“Dunn”). The Examiner asserts that Okuyama teaches essentially the claimed invention except “wherein the electronic program guide subsystem is configured to receive updated electronic program guide information from the set-top box, where the set-top box is configured to detect updated electronic program guide information.” The Examiner further asserts that Dunn teaches updating electronic program guide information and that it would have been obvious to modify Okuyama as taught by Dunn so that Okuyama can update EPG information.

As described above with regard to the rejections of Claims 1 and 22 under 35 U.S.C. § 102(e), Okuyama does not teach, disclose, or suggest all the limitations of either amended Claim 1 or amended Claim 22. Furthermore, Dunn does not teach, disclose, or suggest the limitations of amended Claims 1 and 22 that are not taught, disclosed, or suggested by Okuyama. Therefore, Applicant respectfully submits that amended Claims 1 and 22 are patentably distinguished over Okuyama in view of Dunn.

Claim 10 depends from amended Claim 1, and further defines the invention defined in amended Claim 1. Claim 10 includes all the limitations of amended Claim 1, which are not taught, disclosed, or suggested by Okuyama or Dunn. Furthermore, Claim 10 further recites limitations of particular utility in addition to the limitations of amended Claim 1. Claim 26 depends from amended Claim 22, so Claim 26 further defines the invention defined in amended Claim 22 and includes all the limitations of amended Claim 22, which are not taught, disclosed, or suggested by Okuyama or Dunn. Furthermore, Claim 26 further recites limitations of particular utility in addition to the limitations of amended Claim 22. Therefore, Claims 10 and 26 are patentably distinguished over Okuyama in view of Dunn. Applicant respectfully requests the Examiner to withdraw the rejections of Claims 10 and 26 under 35 U.S.C. § 103(a) and to pass these claims to allowance.

**Response to Rejection of Claims 15 and 18 Under 35 U.S.C. § 103(a)**

In the August 5, 2002 Office Action, the Examiner rejects Claims 15 and 18 as being unpatentable over Okuyama in view of U.S. Patent No. 6,137,539 to Lownes et al. (“Lownes”). The Examiner asserts that Okuyama teaches essentially the claimed invention except for wherein the at least one auxiliary interface supports synchronous communication. The Examiner further

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asserts that Lownes teaches displaying status and controlling attached peripheral devices in television receivers that operate according to digital television standard which supports synchronized processing and that it would have been obvious to modify Okuyama as taught by Lownes so that Okuyama can support synchronous communications.

As described above with regard to the rejection of amended Claim 1 under 35 U.S.C. § 102(e), Okuyama does not teach, disclose, or suggest all the limitations of amended Claim 1. Furthermore, Lownes does not teach, disclose, or suggest the limitations of amended Claim 1 that are not taught, disclosed, or suggested by Okuyama. Therefore, Applicant respectfully submits that amended Claim 1 is patentably distinguished over Okuyama in view of Lownes.

Claims 15 and 18 depend from amended Claim 1 and further define the invention defined in amended Claim 1. Each of Claims 15 and 18 includes all the limitations of amended Claim 1, which are not taught, disclosed, or suggested by Okuyama or Lownes. Furthermore, each of Claims 15 and 18 further recites limitations of particular utility in addition to the limitations of amended Claim 1. Therefore, Claims 15 and 18 are patentably distinguished over Okuyama in view of Lownes. Applicant respectfully requests the Examiner to withdraw the rejections of Claims 15 and 18 under 35 U.S.C. § 103(a) and to pass these claims to allowance.

#### **Response to Rejection of Claim 21 Under 35 U.S.C. § 103(a)**

In the November 21, 2001 Office Action, the Examiner rejects Claim 21 as being unpatentable over Okuyama in view of U.S. Patent No. 5,699,107 to Lawler et al. ("Lawler"). The Examiner asserts that Okuyama teaches essentially the claimed invention except wherein the EPG processing device comprises a user viewing monitor that keeps track of and compiles a user viewing history and set of user preferences. The Examiner further asserts that Lawler teaches such an interactive viewing system and that it would have been obvious to modify Okuyama as taught by Lawler to provide the desirable advantage of allowing a service provider to track the viewing of users.

As described above with regard to the rejection of amended Claim 19 under 35 U.S.C. § 102(e), Okuyama does not teach, disclose, or suggest all the limitations of amended Claim 19. Furthermore, Lawler does not teach, disclose, or suggest the limitations of amended Claim 19 that are not taught, disclosed, or suggested by Okuyama. Therefore, Applicant respectfully submits that amended Claim 19 is patentably distinguished over Okuyama in view of Lawler.

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Claim 21 depends from amended Claim 19 and further defines the invention defined in amended Claim 19. Claim 21 includes all the limitations of amended Claim 19, which are not taught, disclosed, or suggested by Okuyama or Lawler. Furthermore, Claim 21 further recites limitations of particular utility in addition to the limitations of amended Claim 19. Therefore, Claim 21 is patentably distinguished over Okuyama in view of Lawler. Applicant respectfully requests the Examiner to withdraw the rejections of Claim 21 under 35 U.S.C. § 103(a) and to pass Claim 21 to allowance.

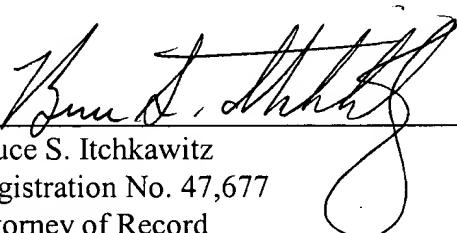
**Summary**

In view of the foregoing remarks, Applicant respectfully submits that Claims 1-19 and 21-30 are in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE  
IN THE CLAIMS:**

**Claim 20 is cancelled.**

**Claims 1, 19, 21, and 22 are amended herein as follows:**

1. (Amended) A digital video recorder connectable to a set-top box configured to receive electronic program guide information and broadcast audiovisual data, the set-top box including at least one auxiliary interface that supports communication between the digital video recorder and the set-top box, the digital video recorder comprising:

at least one recorder interface connectable to the auxiliary interface;

a storage device; **[and]**

a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem connected to the recorder interface to receive the electronic program guide information from the set-top box and to process the electronic program guide information to schedule recording the broadcast audiovisual data on the storage device; and

a video output interface separate from the recorder interface, the video output interface connectable to a display device.

19. (Amended) **[An electronic program guide processing device] A digital video recorder** connectable to a set-top box configured to receive electronic program guide information, the set-top box including at least one auxiliary interface that supports communication between the **[electronic program guide processing device] digital video recorder** and the set-top box, the **[electronic program guide processing device] digital video recorder** comprising:

at least one device interface connectable to the auxiliary interface; **[and]**

a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem connected to the device interface to receive and process the electronic program guide information from the set-top box; and

a video output interface separate from the device interface, the video output interface connectable to a display device.

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21. (Amended) The [electronic program guide processing device] digital video recorder of Claim 19, wherein the [electronic program guide processing device] digital video recorder comprises a user viewing monitor that keeps track of and compiles a user viewing history and set of user preferences.

22. (Amended) A method for communicating electronic program guide information from a set-top box configured to receive the electronic program guide information to a digital video recorder comprising a video output interface connectable to a display device and a microprocessor configured to control the digital video recorder and the set-top box, the microprocessor comprising an electronic program guide subsystem, the method comprising:

connecting at least one recorder interface of the digital video recorder to at least one auxiliary interface of the set-top box, the recorder interface separate from the video output interface and connected to the electronic program guide subsystem;

recognizing the connection of the digital video recorder to the set-top box; and

communicating the electronic program guide information from the set-top box to the electronic program guide subsystem.

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